

## **WISCONSIN CONSTRUCTION SPECIFICATION**

### **51. Organic Fill for Embankments and Ditch Plugs**

#### **1. SCOPE**

The work shall consist of placing the organic fill required by the drawings. The maximum effective height (measured from the top of the fill to the lowest point along the centerline of the fill) of an embankment or ditch plug is limited to 8 feet.

#### **2. MATERIALS**

Organic fill includes the classifications of OL, OH, and PT (peat) as defined in ASTM D2488, Description and Identification of Soils (Visual-Manual Procedure).

All organic fill shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of materials shall be subject to approval by Technician.

Organic fill shall contain no sod, brush, trees, stumps, roots, woody vegetation, or frozen material. Stones larger than 9 inches in diameter shall be removed from the materials prior to placement of the organic fill.

#### **3. FOUNDATION PREPARATION**

The foundation area shall be cleared of trees, stumps, roots, brush, and rubbish. Stones larger than 9 inches shall also be removed. Foundations shall be stripped to remove vegetation to the depth shown on the drawings or as approval by Technician. The materials stripped from the foundation shall be disposed of as required by the drawings.

#### **4. BORROW EXCAVATION**

The borrow area shall be cleared of trees, stumps, roots, brush, and rubbish. Stones larger than 9 inches shall also be removed. The borrow area shall be stripped to remove vegetation to the depth shown on the drawings or as approval by Technician. The materials removed from the borrow area shall be disposed of as required by the drawings.

This work shall be performed immediately prior to use of the borrow material to reduce the time the area is exposed to erosion.

The extent of excavation and the selection of materials from the borrow area shall be as directed by the Technician. On completion of excavation, all borrow areas shall be left to contain microtopography features (topography less than 6 inches in height or depth) or as directed by the Technician. All borrow areas shall be graded to blend with existing topography or as shown on the drawings.

#### **5. PLACEMENT**

Organic fill shall not be placed until the required excavation and preparation of the underlying foundation is completed, inspected, and approved by the Technician. No organic fill shall be placed upon a frozen surface nor shall snow, ice, or frozen material be incorporated in the organic fill.

Organic fill shall be placed to the neat lines and grades shown on the construction plan unless otherwise approved by the Technician.

The contractor shall furnish and operate the types and kinds of equipment necessary to place and shape the embankment or ditch plug organic fill.

#### 6. CONTROL OF MOISTURE CONTENT

Organic fill shall have a moisture content sufficient to insure the required placement and compaction. When kneaded in the hand, the soil will retain a shape which does not readily separate and will not extrude out of the hand when squeezed tightly. The adequacy of the moisture content will be determined by the Technician.

Organic fill or the top surface of the preceding layer of compacted organic fill that becomes too dry to permit suitable bond shall either be removed or scarified and wetted by sprinkling to an acceptable moisture content prior to placement of the next layer of organic fill.

Organic fill or the top surface of the preceding layer of compacted organic fill that becomes too wet shall be either removed or allowed to dry to an acceptable moisture content before compaction or placement of additional layers of organic fill.

#### 7. COMPACTION

The foundation surfaces shall be scarified parallel to the centerline of the embankment to a minimum depth of 2 inches. The surface materials of the foundation shall be bonded with the first layer of organic fill.

Organic fill shall be placed in approximately horizontal layers (lifts) beginning at the lowest elevation of the foundation. The thickness of each layer of organic fill, prior to compaction, shall not exceed 12 inches. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than 12 inches prior to compaction.

Unless additional compaction is specified by the construction plans, each lift shall be traversed by 2 passes of the construction equipment. Each pass, parallel to the main axis of the embankment, shall consist of complete coverage of the entire surface of the organic fill layer.

Adjacent to structures or in confined areas, compaction of the organic fill shall be accomplished by means of manually directed power tampers or plate vibrators or hand tamping, unless otherwise specified. Heavy equipment shall not be operated within 2 feet of any structure.

The Technician shall determine if adequate compaction is being achieved.